

REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Office Action of June 2, 2009.

Claims 4, 5, 17-20 are currently pending. Claims 4-5 and 17-20 were rejected. Claim 17 is currently amended. No new matter has been added.

Entry of the included amendment and reconsideration of the Application is requested.

The Subject Embodiments

The subject embodiments are directed to a distributed image processing system and method, the distributed image processing system typically including a plurality of imaging devices (i.e., printers or copy stations) in network communication with an asset management system and services host system which are capable of communicating with the imaging devices to assess performance and provide application programs. The imaging devices are typically remote from both the asset management system and the services host system. A feature of the subject embodiments is that the deployed imaging devices include a Device Model Agent (DMA) disposed within the imaging devices for interactive communication between the asset management system and services host system functioning as an interface layer that provides a common view of device data, event and operations to system management applications. More particularly, the DMA module includes a first DMA application for monitoring imaging device events and prescribing corresponding actions and a second DMA application for performing dynamic updates of executable imaging device services. A service management component of the DMA module selectively cooperates with the first and second DMA applications and facilitates the interactive communication with the asset managing system and services host system so that the DMA module enables imaging device active participation in the service applications. This active participation includes the imaging device actively subscribing to and adding new service components to the imaging device. Such active participation is to be contrasted with mere resident data storage and communication.

The Device Model Agent (DMA), the “device side” technology module in Device Centric Services (DCS) platform is a thin, efficient applications/services execution environment. The DMA provides a flexible, extensible, dynamic services management system allowing e-services to be designed, added, and managed within an imaging system without modifying the DCS platform itself.

The Device Model Agent as described herein adds the following capabilities to document system devices. The unique combination of these capabilities enables several benefits related to system management application development, deployment, and maintenance.

1. Active participation in applications and services offerings (post-sale, system management, and other services)

The devices that embed the DMA module can perform several computational tasks required in system management applications and services. In this architecture an application server (e.g., installed in customer environment or a back office server) and the target device collaborate to complete system management offerings. The DMA provides a service execution environment where a service may run as a whole or be part of a system management application running on an application server.

The DMA services are capable of performing the following tasks.

- Monitor device events and take prescribed actions
- Publish data to subscribers upon occurrence of an event of interest
- Invoke methods (such as diagnostic routines) on the device as directed by external clients.

2. Dynamic updates of services and support components

Operating within the end-to-end DCS platform the devices that embed DMA module can add new service components dynamically. It allows a customer or application components already on the device to request such additions to support services. It allows the addition (or deletion) of components as needed and without system or DMA recompilation or restart. The target device itself initiates the additions of a new or upgraded service as a whole or supporting components for existing services. Thus in the system described herein the device is now responsible for initiating the activity to maintain itself and system management services running on it.

3. Device Independent Applications

Present embodiments recognize the need for an application/services execution environment to enable developers to work with consistent and standards-based tool sets. The DMA module enables the development of device independent post-sale applications. Applications written using DMA interfaces do not have to change to accommodate new or upgraded (DMA enabled) devices. While DMA implements model-based approach espoused by DMTF for achieving device independence for applications/services, it adds to this implementation a new component called the Service Manager. The Service Manager is primarily responsible for the following actions related to services.

- Control service lifecycle of each service activated for the device
- Manage services
- Programmatic interface (API) for system management clients (local or remote) for control and management of services

4. Dynamic services provisioning

Operating within the end-to-end DCS platform the DMA-enabled devices and DCS application server allows services provisioning and management by application server hosted by a third-party service provider. The DMA-enabled devices and application servers collaborate to provide dynamic provisioning. Using this system a customer would be able to review a set of applications, select or customize one or more applications to fit. In order to cover new and existing (MIF) device base, the architecture of DMA allows its deployment in the following scenarios.

- Embedded in a networked device, such as a printer or multifunction device.
- Embedded in a specialized hardware for standalone devices such as a copier or for existing devices in field.
- Embedded in network application either as a single device proxy or multiple device proxy configurations.

The Office Action

With regard to the last Office Action, mailed June 2, 2009, Claims 4-5 and 17-20 were rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 17 embraces or overlaps two separate statutory classes of invention set forth in 35 U.S.C. 101 in a single claim.

Claims 4-5 and 17-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The claims are ambiguously constructed and indeterminate in scope because they purport to claims both a system and method.

Claims 4-5 and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ferlitsch et al. 2002/0113989 A1 (Ferlitsch).

Response

With regard to the rejection of claims 4-5 and 17-20 under 35 U.S.C. 101 and 35 U.S.C. 112, second paragraph, because claim 17 embraces or overlaps two separate statutory classes in a single claim, this rejection is respectively traversed.

As indicated in the MPEP § 2173.05(p), "A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph ... such claims may also be rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a 'process' nor a 'machine', but rather embraces or overlaps two different statutory classes" It is asserted that claim 17, as previously presented and currently amended, is drawn to only a DMA provisioning method for operating a distributed image processing system, not the distributed image processing system itself. In order to properly claim the DMA provisioning method for operating the distributed image processing system, it is necessary to recite components of the image processing system in order to properly relate the claimed provisioning method steps to an image processing system.

As a matter of logic, in order to claim a method of using an apparatus, which is clearly a single statutory class of subject matter, the apparatus must be recited to claim the method of using the apparatus. Therefore, it is believed by the Applicant that claim

17 and all claims depending therefrom, i.e. claims 4, 5, 18, 19 and 20, are in compliance with 35 U.S.C. § 101 and 35 U.S.C. § 112, second paragraph.

With regard to the rejection of claims 4-5 and 17-20 under 35 U.S.C. § 102(e) as being anticipated by Ferlitsch et al. (U.S. 2002/0113989), this rejection is respectively traversed.

Specifically, Ferlitsch et al. does not teach each and every limitation of independent claim 17, or dependent claims 4, 5, 18, 19 and 20. For example, Ferlitsch et al. does not disclose a DMA provisioning method comprising:

- the DMA module, communicating with the imaging device to identify a user requested imaging device service;

- the DMA module, communicating to the services host system the user requested imaging device service;

- the services host system, identifying the user requested imaging device service;

- the services host system, accessing a services definitions database and retrieving data about the requested imaging device service;

- the services host system, processing an order for the requested imaging device service;

- the services host system, defining uniform service versions and parameters associated with the deployment of the requested imaging device service;

- the services host system, registering the deployment of the requested imaging device service to the DMA;

- the services host system, deploying the requested imaging device service to the DMA; and

- the DMA module, initiating the execution of the user requested imaging device service.

Furthermore, it is respectively submitted the last Office Action failed to provide a Prima Facie case supporting the rejection of claims 4-5 and 17-20 as being anticipated by Ferlitsch. Specifically, the last Office Action cited paragraphs [0035, 0038-0039, 0042-0045] as disclosing the claimed method steps of claim 17, however it is not clear how these cited paragraphs are applied to claim 17. In other words, where in these cited paragraphs is each step of the claimed DMA provisioning method?

For the reasons discussed above, the Examiner is respectively requested to withdraw the rejection of claims 4-5 and 17-20.

CONCLUSION

For the reasons detailed above, it is submitted all remaining claims (Claims 4-5 and 17-20) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

☒ Remaining Claims, as delineated below:

(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT LESS HIGHEST NUMBER PREVIOUSLY PAID FOR		(3) NUMBER EXTRA
TOTAL CLAIMS	6	- 20 =	0
INDEPENDENT CLAIMS	1	- 4 =	0

☒ This is an authorization under 37 CFR 1.136(a)(3) to treat any concurrent or future reply, requiring a petition for extension of time, as incorporating a petition for the appropriate extension of time.

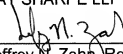
☒ This is a request for a **two (2) month** extension of time. The extension request is being paid for by credit card via EFS Web.

☒ The Commissioner is hereby authorized to charge any filing or prosecution fees which may be required, under 37 CFR 1.16, 1.17, and 1.21 (but not 1.18), or to credit any overpayment, to Deposit Account 24-0037.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby authorized to call Jeffrey N. Zahn, at Telephone Number (216) 363-9000.

Respectfully submitted,

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Date